

Equine Viral Arteritis

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THE FACTS

- Rates of EVA infection run as high as 80 percent in some breeds.
- EVA is most often associated with racetracks, show circuits and breeding farms.
- EVA is spread venereally and via respiratory secretions.
- Signs, which vary widely, may not be obvious.

Equine Viral Arteritis (EVA) is a highly contagious viral disease that infects horses.

The disease can have a particularly devastating effect on broodmares and stallions. Generally associated with horse populations on racetracks, show circuits, and breeding farms, EVA is found in a many breeds. However, the percentage of horses infected tends to be higher in some. While the infection rate in Thoroughbreds and Arabians is estimated at less than three percent, that figure soars to 70 percent to 80 percent in Standardbreds.

Symptoms of EVA

Infected horses can show any combination of many clinical signs:

- respiratory illness
- coughing
- nasal discharge
- abortions
- eye inflammation
- lack of appetite
- swelling of the limbs
- depression
- fever for one to five days
- birth of weak or sick foals
- swelling of male's genital area
- swelling of mare's mammary glands
- skin rash localized around the head or neck

- signs of pneumonia in young foals
- death in young foals

Certain strains of the equine arteritis virus can cause abortions in susceptible mares. Abortions usually occur between one week and three weeks following exposure to the virus during the 5- to 10-month stage of gestation. However, loss of the foal may happen up to two months later. Clinical signs may not be obvious preceding the abortion. Some mares, even those severely infected, may never abort.

Transmission

EVA is spread through respiratory secretions or venereal contact. The respiratory route is the primary means of transmission during outbreaks at racetracks, horse shows, sales and veterinary clinics. Venereal transmission is considered the primary source on breeding farms.

A significant percentage of stallions may become carriers of EVA. Because carrier stallions shed virus constantly in semen (not respiratory secretions or urine) mares are susceptible when bred naturally or artificially.

Diagnosis

Diagnosis of respiratory viral diseases in horses is based on clinical signs seen during a physical

exam. In-depth viral testing of semen or vaginal secretions is not usually performed, because of the extended lab time required and relatively high cost.

Treatment

No effective treatment is known. Drugs to control the symptoms are often used (e.g., antipyretics such as Banamine). Secondary bacterial infections can be more serious than the initial viral infection.

Prevention and Control

Horses can be vaccinated annually beginning at six weeks of age. For breeds like Standardbred, where the disease is endemic, vaccination is a must.

To identify carriers, all breeding stallions should be tested. Two most common test methods are:

- Attempted isolation of equine arteritis virus from two separate ejaculations collected and submitted by an accredited veterinarian to a USDA-approved laboratory; or
- Test-breeding the stallion to two EVA-negative mares at least twice on each of two consecutive days.

The mares should then be checked for the virus 28 days later.

Once confirmed negative, all breeding stallions should be vaccinated to prevent establishment of the carrier state. At least 30 days should pass before breeding again. Vaccinated stallions have never been shown to become carriers of the virus.

To allow immunity to build, mares should be vaccinated 21 days before breeding. Also, following the first vaccination, a mare may shed small amounts of vaccine virus for a short time and, therefore, should be isolated from negative horses. As a test, a first-time vaccinee should be bred to a EVA-positive stallion, then isolated for 21 days to prevent possible infection of other animals.

A mare not bred to a known positive needs to be vaccinated again 21 days before breeding the following year. Isolation is not required following subsequent vaccinations. Mares, which have been vaccinated and bred to shedding stallions, need to be boosted every year at least 21 days before breeding.

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